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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,560	02/20/2004	James Stewart	15436.253.88.2	7564
22913	7590	08/21/2006	EXAMINER	
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			VY, HUNG T	
			ART UNIT	PAPER NUMBER
			2163	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/783,560

Applicant(s)

STEWART ET AL.

Examiner

Hung T. Vy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 3 and 13 is/are allowed.  
6) ☒ Claim(s) 1,2,4-12,14-20 and 22 is/are rejected.  
7) ☒ Claim(s) 21 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**  
***Information Disclosure Statement***

1. As of entry of the amendment filed on dated 6/28/2006, claims 1-22 are pending in this application as result of the additional of claims 21-22. Upon reconsideration, the applicant's arguments are not persuasive (see respond to argument below).

**Claim Rejections - 35 USC § 102**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4-5, 9-11, 16 and 22 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Ackerman et al. (U.S. patent No. 6,291,813).

With respect to claims 1, 16 and 22, Ackerman et al. discloses a method of compensating for wavelength drift in an optoelectronic assembly comprising: identifying two or more time intervals (See fig. 6 or see column 2, line 65-68); identifying a corresponding optical signal wavelength for each of the two or more time intervals (See fig. 6); calculating an average wavelength drift based at least in part on a differential wavelength value detected between the identified corresponding optical signal wavelengths over the identified two or more time intervals (see column 3, line 57-68); and adjusting a temperature component in the optoelectronic assembly so that a

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transmitted optical signal has a resultant wavelength that is within a range of a target wavelength (See column 4, line 14-18 and fig. 7).

Respect to claim 2, Ackerman et al. discloses the average wavelength drift of the optoelectronic assembly over the defined operational lifetime comprises one of a red shift and a blue shift (See column 4, line 34-45).

Respect to claim 4, Ackerman et al. discloses the temperature component is a thermoelectric cooler (716) (see fig.7).

Respect to claims 5, and 10-11, Ackerman et al. discloses the optoelectronic assembly is optical transceiver including a transmitter optical sub-assembly (See column 1, line 18-20), it is inherent that the cpu 730 have a volatile memory and nonvolatile memory

With respect to claim 9, Ackerman et al. discloses an optoelectronic assembly, comprising: one or more optical subassemblies (see column 1, line 18), a thermoelectric (716) cooler coupled with at least one of the one or more optical subassemblies; and a microprocessor (730) having instructions that, when executed, perform the method comprising: identifying two or more time intervals (See fig. 6 or see column 2, line 65-68); identifying a corresponding optical signal wavelength for each of the two or more time intervals (See fig. 6); calculating an average wavelength drift based at least in part on a differential wavelength value detected between the identified corresponding optical signal wavelengths over the identified two or more time intervals (see column 3, line 57-68); and adjusting a temperature component in the optoelectronic assembly so that a

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transmitted optical signal has a resultant wavelength that is within a range of a target wavelength (See column 4, line 14-18 and fig. 7).

4. Claims 1, 10-12, 16 and 22 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Kish, JR. et al. (U.S. pub. 2005/0018721).

With respect to claims 1, 16, and 22, Kish Jr et al. discloses a method of compensating for wavelength drift in an optoelectronic assembly comprising: identifying two or more time intervals (See 13); identifying a corresponding optical signal wavelength for each of the two or more time intervals (See 13); calculating an average wavelength drift based at least in part on a differential wavelength value detected between the identified corresponding optical signal wavelengths over the identified two or more time intervals (see fig. 11-12); and adjusting a temperature component in the optoelectronic assembly so that a transmitted optical signal has a resultant wavelength that is within a range of a target wavelength (See column 10-12).

With respect to claims 10-12, Kish, JR. et al. discloses a transmitter subassembly (fig. 2), memory module, the identified corresponding optical signal wavelength for each of the one or more time intervals is stored in the memory module (See fig 12a).

5. Claims 1, 4-5, 7-8, 10-12 and 14-18, 20 and 22 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Nasu et al. (U.S. patent No. 6,856,633).

Regarding claims 1, 16 and 22, Nasu et al. discloses a method of compensating for wavelength drift in an optoelectronic assembly comprising: identifying two or more time intervals (See fig. 10); identifying a corresponding optical signal wavelength for each of the two or more time intervals (wavelength monitor PD (see fig. 17-19);

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calculating an average wavelength drift based at least in part on a differential wavelength value detected between the identified corresponding optical signal wavelengths over the identified two or more time intervals (see column 4, line 16-25 and fig. 29); and adjusting a temperature component in the optoelectronic assembly so that a transmitted optical signal has a resultant wavelength that is within a range of a target wavelength (See column 9, line 14-26).

Respect to claim 4, Nasu et al. discloses the temperature component is a thermoelectric cooler (TEC) (see fig.11).

Respect to claims 5,7-8, and 10-12, Nasu et al. discloses the optoelectronic assembly is optical transceiver including a transmitter optical sub-assembly (see fig. 19), a volatile memory and nonvolatile memory (See column 15, line 51), a microprocessor (see column 5, line 35-45).

With respect to claim 9, Nasu et al. discloses an optoelectronic assembly, comprising: one or more optical subassemblies (see column 1, line 18), a thermoelectric (TEC) cooler coupled with at least one of the one or more optical subassemblies (See fig. 19); and a microprocessor (see column 15, line 33-40) having instructions that, when executed, perform the method comprising: identifying two or more time intervals (See fig. 10); identifying a corresponding optical signal wavelength for each of the two or more time intervals (wavelength monitor PD (see fig. 17-19); calculating an average wavelength drift based at least in part on a differential wavelength value detected between the identified corresponding optical signal wavelengths over the identified two or more time intervals (see column 4, 16, 25 and fig. 29); and adjusting a temperature

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component in the optoelectronic assembly so that a transmitted optical signal has a resultant wavelength that is within a range of a target wavelength (See column 9, line 14-26).

Respect to claims 14-15, Nasu et al. discloses a wave meter for measuring an optical signal wavelength (see Wavelength Monitor PD), CPU (see column 15, line 33-40).

With respect to claims 17-18, Nasu et al. discloses a first wavelength output by the laser during the first time interval, second time further comprises obtaining sample data that includes a wavelength over the first time interval and the second time interval (See fig. 29).

With respect to claim 20, Nasu et al. discloses adjusting a temperature of the laser based on the average wavelength shift further comprising a accessing a control value to determine a particular temperature to which the laser is adjusted (See fig. 11).

### **Claim Rejections - 35 U.S.C. § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 19 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Nasu et al. (U.S. patent No. 6,856,633).

With respect to claims 6 and 19, Nasu et al. discloses the claimed invention recited in claims 1 and 16 except for different time intervals sampled. It would have

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been obvious to one having ordinary skill in the art at the time of the invention was made to have different time intervals sampled, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

#### **Allowable Subject Matter**

8. Claims 3, and 13 are allowed.

Since the prior art of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed a method of compensating for wavelength drift in an optoelectronic assembly having the range of a target wavelength is **within 100 picometers** of the target wavelength.

9. Claim 21 is objected to as being dependent upon a reject base claim 16 but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, since the prior art of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed a method of compensating for wavelength drift in an optoelectronic assembly having the range of a target wavelength is **within 100 picometers** of the target wavelength.

#### **Response to Arguments**

10. Applicant's arguments filed on 06/28/2006 have been fully considered but they are not persuasive. Applicant made the following arguments:

a. "The examiner has not set forth where in this passage an average wavelength drift is calculated as required for a prima facie case of anticipation to claim 1,9, and 16. In fact, this portion relied upon in the Office Action merely



relates to normalizing an ethalon signal 10 with a reference signal 11 not requiring the calculation of an average wavelength drift, but rather, merely requires calculation of a difference between the two signals (see col. 3, line 57-58) for normalization. Therefore a prima facie case of anticipation has not been set forth and the Applicants respectfully request that the rejection of claims 1, 9 and 16 be withdrawn" page 13, third paragraph.

b. "Moreover, after a review of Figures 11, 12A and 12B, the Applicant is unable to identify calculation of an average of an average wavelength drift as alleged by the Examiner. As such, the Applicants respectfully request that the rejection of claims 1 and 16 withdrawn or an indication of where the elements of the claims are taught be clearly explained" page 14, first paragraph.

c. "Moreover, a review of columns 4, 16, 25 and fig. 29 does not reveal such a calculation of an average wavelength drift in combination with every other element set forth in independent claims 1 and 16", page 15, second paragraph.

In response to Applicant's argument a above, the Applicant's arguments are not persuasive because the claims recites "*calculating an average wavelength drift based at least in part on a differential wavelength value detected between the identified corresponding optical signal wavelength over **the identified two or more time interval***". Ackerman et al. discloses calculation of a difference between the two signals as claimed invention (over the identified two time interval) so Ackerman et al. discloses an average wavelength drift based the optical signal wavelength over the identified two-time interval. The claim does not recited what is the calculating an average wavelength drift to explain clearly the

average wavelength drift. The claim recited calculating an average wavelength drift corresponding optical signal wavelengths over the identified two time intervals as Ackerman et al. disclosed.

In response to Applicant's argument **b** above, the Applicant's arguments are not persuasive because Kish discloses an average wavelength drift as step 37 on fig. 11 by comparing the designated operating and the monitored wavelength (average wavelength drift) and adjust the temperature the DFB to get the wavelength that is within a range of a target wavelength (step 45)(see fig. 11).

In response to Applicant's argument **c** above, the Applicant's arguments are not persuasive because Nasu et al. discloses in fig. 29, that calculating an average wavelength drift based at least in part on a differential wavelength value corresponding optical signal wavelength over the identified two or more time intervals (see column 4, line 32-68) and adjust temperature component (see column 4, line 15-32). Nasu et al. discloses very clearly an average wavelength drift and adjust a temperature to get the wavelength that within a range of a target wavelength.

In response to Applicant's argument about the 35 U.S.C 103, the Applicant's argument are not persuasive because The Applicant does not demonstrated the criticality of a specific limitation for this claimed invention. It would be appropriate to rely sole on case law as the rationale to support an obviousness rejection (MPEP 2144).

### **Conclusion**

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Vy whose telephone number is 571-2721954. The examiner can normally be reached on 8.30am - 5.30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

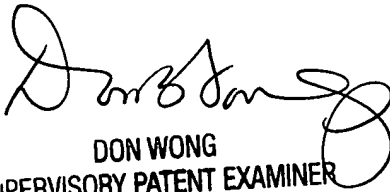
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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hung T. Vy  
Art Unit 2821  
August 12, 2006.



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